

Appendix 4  
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Hansen et al.

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[54] CDR-GRAFTED TYPE III ANTI-CEA  
HUMANIZED MOUSE MONOCLONAL  
ANTIBODIES

[75] Inventors: Hans J. Hansen, Mystic Island, N.J.;  
Kathryn L. Armour, Aberdeen,  
Scotland

[73] Assignee: Immunomedics, Inc., Morris Plains,  
N.J.

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Primary Examiner—Frank C. Eisenschenk  
Attorney, Agent, or Firm—Foley & Lardner

[57]

## ABSTRACT

A humanized monoclonal antibody, comprising the complementarity-determining regions of a parental murine Class III, anti-CEA monoclonal antibody engrafted to the framework regions of a heterologous antibody, wherein the humanized monoclonal antibody retains the binding specificity of, but is less immunogenic in a heterologous host than, the parental murine monoclonal antibody. A preferred murine Class III, anti-CEA monoclonal antibody is the MN-14 antibody and the preferred heterologous antibody is from a human. Also provided are DNA constructs and vectors for producing the humanized monoclonal antibodies, and diagnostic and therapeutic conjugates using same.

30 Claims, 16 Drawing Sheets